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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,550	05/22/2001	Michael Zhu	ZEUSP002	8786

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EXAMINER

DINH, KHANH Q

ART UNIT PAPER NUMBER

2151

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Am

Office Action Summary	Application No. 09/863,550	Applicant(s) ZHU, MICHAEL	
	Examiner Khanh Dinh	Art Unit 2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 26 February 2002.
- 2a) This action is **FINAL**.
- 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-20 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-5,7-12,15 and 17-20 is/are rejected.
- 7) Claim(s) 6,13,14 and 16 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 - 1. Certified copies of the priority documents have been received.
 - 2. Certified copies of the priority documents have been received in Application No. _____.
 - 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2/26/02; 7/23/01.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

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DETAILED ACTION

1. This is in response to the preliminary Amendment filed on 2/26/2002. Claims 1, 2 and new claims 3-20 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 7-12, 15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner, US pat. No.6,219,676 in view of DeSimone et al., US pat. No.5,787,470.

As to claim 1, Reiner discloses a system for caching of data for a plurality of clients (18s' fig.1) coupled to at least one source (14a fig.1) with data resources each identified by a corresponding uniform resource locator (URL); and the system comprising:

at least one cache module (cache server 14b's fig.1) coupled to selected clients among plurality of clients to cached data resources requested by the selected clients along with corresponding URLs (providing URLs to clients, see fig.1, abstract, col.4 line 62 to col.5 line 50), and the at least one cache module responsive to update messages identifying URLs of data resources requiring an update (updating contents, see col.7 lines 6-64), to tag cached copies of data resources identified in the update messages to indicate a lack of coherency between the cached copies and the originals of the data

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resources in the at least one data source (using chronological compilation of file changes in a consolidated log, see fig.5, col.7 lines 6-64 and col.8 lines 3-62); and a coherency management module (22 fig.1) coupled to the at least one data source to monitor data resource copies supplied by the at least one data source in response to requests by the selected clients and to send to the at least one cache module the update messages identifying each URL for which successive requested copies of the corresponding data resource differ from one another (i.e., using the controller in 22 fig.1 to control signal communication and transfer communication with server cache and clients, see col.6 lines 11-63 and col.8 lines 3-62).

Reiner does not specifically disclose a message with a "stale" tag. However DeSimone discloses a message with a "stale" tag (initiating and processing a request to inform about the subset has been update in the system, see fig.5, col.3 line 50 to col.4 line 52 and col.5 lines 10-62). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to implement DeSimone's teaching into the computer system of Reiner to update cache objects in servers because it would have enabled servers to carry the most recent version of the objects and to update each other about Web objects in a communications network.

As to claim 2, Reiner discloses the at least one cache module further comprises an update fetcher to fetch an update from the at least one data source of cached copies (see col.7 line 20 to col.8 line 62). Reiner does not specifically disclose a message with a "stale" tag. However DeSimone discloses a message with a "stale" tag (initiating and

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processing a request to inform about the subset has been update in the system, see fig.5, col.3 line 50 to col.4 line 52 and col.5 lines 10-62). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to implement DeSimone's teaching into the computer system of Reiner to update cache objects in servers because it would have enabled servers to carry the most recent version of the objects and to update each other about Web objects in a communications network.

As to claim 3, Reiner discloses at least one cache module further an update scheduler (change log) to schedule data resource updates to correspond with an availability of the at least one cache module and an update fetcher responsive to a data resource update scheduled by the update scheduler to fetch updates from the at least one data source of cached copies of the data resources (using change log to update/change contents, see fig.5, col.3 line 50 to col.4 line 52 and col.5 lines 10-62). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to implement DeSimone's teaching into the computer system of Reiner to update cache objects in servers because it would have enabled servers to carry the most recent version of the objects and to update each other about Web objects in a communications network.

As to claims 7 and 8, Reiner discloses comprising a web page and at least one of a server, a gateway, a router and a switch coupled to the data source (see col.6 lines 11-64).

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As to claim 9, Reiner discloses at least one cache module comprising a plurality of cache modules each coupled to corresponding ones of the plurality of clients and each responsive to the update messages from the coherency management module corresponding cached copies of the data resources identified in the update messages (using change log to update/change contents, see fig.5, col.3 line 50 to col.4 line 52 and col.5 lines 10-62). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to implement DeSimone's teaching into the computer system of Reiner to update cache objects in servers because it would have enabled servers to carry the most recent version of the objects and to update each other about Web objects in a communications network.

As to claim 10, Reiner discloses a method for caching data for a plurality of clients (18s' fig.1) coupled to at least one data source (14a's fig.1) with data resources each identified by a corresponding uniform resource locators (URL); and the method comprising the acts of:

 caching the data resources together with corresponding URLs requested by the selected clients among the plurality of clients (providing URLs to clients, see fig.1, abstract, col.4 line 62 to col.5 line 50).

 generating update messages identifying in the requests from the selected clients each URL for which successive requested copies of the corresponding data resource supplied by the at least one data source differ from one another (using chronological

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compilation of file changes in a consolidated log, see fig.5, col.7 lines 6-64 and col.8 lines 3-62).

tagging the cached copies of the data resources cached in the caching act and identified in the update messages generated in the generating act, and with the tag indicating a lack of coherency between the tagged cached copy and the corresponding original of the data resource in the at least one data source another (i.e., using the controller in 22 fig.1 to control signal communication and transfer communication with server cache and clients, see col.6 lines 11-63 and col.8 lines 3-62).

Reiner does not specifically disclose a message with a "stale" tag. However DeSimone discloses a message with a "stale" tag (initiating and processing a request to inform about the subset has been update in the system, see fig.5, col.3 line 50 to col.4 line 52 and col.5 lines 10-62). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to implement DeSimone's teaching into the computer system of Reiner to update cache objects in servers because it would have enabled servers to carry the most recent version of the objects and to update each other about Web objects in a communications network.

Claims 11 and 12 are rejected for the same reasons set forth in claims 2 and 3 respectively.

As to claims 15 and 17, Reiner discloses storing the cached data resources together with corresponding URLs at discrete locations each associated with a corresponding

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subset of the selected clients among the plurality of clients and a web page (see col.6 lines 11-63 and col.8 lines 3-62).

Claims 18-10 are rejected for the same reasons set forth in claims 10-12 respectively.

4. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reiner and DeSimone as applied to claim 1 above, and further in view of Reed et al., US pat. No.5,862,325.

As to claim 4, neither Reiner nor DeSimone discloses a signature generator to generate a digital signature for each data resource copy supplied by the at least one data source in response to requests by the selected clients, a signature cache to cache the digital signatures generated by the signature generator along with corresponding URLs and each URL for which successive digital signatures for the corresponding data resource differ from one another; and an updater to send update messages to the at least one cache module for those digital signatures with corresponding URLs tagged with the stale tag and to remove the corresponding stale tags from the signature cache upon sending the update messages. However, Reed discloses a signature generator to generate a digital signature for each data resource copy supplied by the at least one data source in response to requests by the selected clients, a signature cache to cache the digital signatures generated by the signature generator along with corresponding URLs and each URL for which successive digital signatures for the corresponding data resource differ from one another; and an updater to send update messages to the at

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least one cache module for those digital signatures with corresponding URLs tagged with the stale tag and to remove the corresponding stale tags from the signature cache upon sending the update messages (using digital signature to process data communications between server and clients, see col.109 lines 4-59 and col.113 lines 4-50). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to utilize Reed's teachings into the computer system of Reiner to authenticate users because it would have prevented unauthorized users to access data information over an Internet communications.

As to claim 5, Reed further discloses a hash of the corresponding data resource (using digital signature to process data communications between server and clients, see col.109 lines 4-59 and col.113 lines 4-50). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to utilize Reed's teachings into the computer system of Reiner to authenticate users because it would have prevented unauthorized users to access data information over an Internet communications.

Allowable Subject Matter

5. Claims 6, 13, 14 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Other prior art cited

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Lapstun et al, US pat. No.6,549,935.

b. Hanson et al, US pat. No.6,760,719.

c. Barbara et al, US pat. No.5,581,704.

Conclusion

7. Claims 1-5, 7-12, 15 and 17-20 are rejected.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (571) 272-3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on (703) 272-3939. The fax phone number for this group is (703) 872-9306.

A shortened statutory period for reply is set to expire THREE months from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned (35 U. S. C . Sect. 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(A).

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Khanh Dinh
Patent Examiner
Art Unit 2151
2/6/2005